



# UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, DC 20231  
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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/073,601	02/11/2002	Phillip M. Rappa	81440-100

CONFIRMATION NO. 8064

28765  
WINSTON & STRAWN  
PATENT DEPARTMENT  
1400 L STREET, N.W.  
WASHINGTON, DC 20005-3502



\*OC00000009491609\*

Date Mailed: 02/07/2003

## RESPONSE TO REQUEST FOR CORRECTED FILING RECEIPT

### Domestic Continuity and Foreign Priority

In response to your request for a corrected Filing Receipt, the Office is unable to comply with the request because:

- ☐ The priority or continuity claim has not been entered because it was not filed during the required time period. Applicant may wish to consider filing a petition to accept an unintentionally delayed claim for priority. See 37 CFR 1.55 or 1.78.
- ☒ **Continuity claimed under 35 U.S.C. § 120 cannot be added to the Filing Receipt without the applicant supplying the relationship (continuation, divisional, or continuation-in-part) in an Application Data Sheet or amendment to the first page of the specification. Serial no 09/372,278 08/11/99**
- ☐ A claim for priority cannot be made based on an application filed after the application making the claim.
- ☐ Domestic benefit and foreign priority claims will not be captured in a provisional application. A provisional application is not entitled to a right of priority or to the benefit of an earlier filing date of any other application. See 35 U.S.C. § 111(b)(7) and 37 CFR 1.53(c)(4).
- ☐ A domestic continuity claim cannot be made to a foreign application and the filing receipt will only list the foreign country, application number, and filing date.
- ☐ Foreign priority will appear on the Filing Receipt in the following order:  
**Country, Application number, Filing date.**
- ☐ This application is the result of a conversion from a provisional application. Priority based on such application cannot be made since it no longer exists as a provisional application.
- ☐ The application(s) to which priority is claimed were filed over a year prior to the filing date of

☐ this application. Therefore, the referenced application(s) cannot be claimed as domestic or foreign priority.

☐ To change the benefit claim of a U.S. prior-filed application, applicant must amend the first sentence of the specification (if the benefit claim is referenced in the specification), or provide a supplemental application data sheet (ADS) (if the benefit claim was submitted in an ADS), with the desired benefit claim. Note that once a benefit claim is deleted, applicant will not be able to claim such prior-filed application again, if the above-identified application was filed on or after November 29, 2000.

☐ To change a foreign priority claim, applicant must submit a supplemental oath or declaration (if the priority claim is referenced in the oath or declaration), or a supplemental application data sheet (ADS) (if the priority claim was submitted in an ADS), with the desired priority claim. If a supplemental ADS is submitted, any deletions should be shown with strikeouts. Note that once a priority claim is deleted, applicant will not be able to claim such foreign application again, if the above-identified application was filed on or after November 29, 2000.

  

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Customer Service Center  
Office of Initial Patent Examination  
(703) 308-1202



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Phillip M. RAPPA et al.

Confirmation No.: 8064

Application No.: 10/073,601

Group Art Unit: 1741

Filing Date: February 11, 2002

Examiner:

For: SYNTHETIC COMBUSTIBLE GAS  
GENERATION APPARATUS AND  
METHOD

Attorney Docket No.: 81440-100

**REQUEST FOR CORRECTION OF FILING RECEIPT**

Office of Initial Patent Examination  
Customer Service Center  
Commissioner of Patents  
Washington, D.C. 20231

RECEIVED  
FEB 12 2003  
TC 1700

Sir:

An updated Filing Receipt has been received for the above-identified application and the following correction is respectfully requested:

Under the heading "Domestic Priority data as claimed by applicant" and after "This application is a CON of PCT/US00/13465 05/16/2000", please insert --which claims priority to 09/372,278 08/11/1999--.

A copy of the filing receipt with the requested change noted thereon is attached. Also enclosed is a copy of page 1 of the specification and a copy of Applicants' Declaration in support of this request.

No fee is believed to be due for this submission. Should any fees be required, however, please charge such fees to Winston & Strawn Deposit Account No. 501-814.

Respectfully submitted,

Date

February 4, 2003

Jeffrey A. Wolfson  
For: Allan A. Fanucci

(Reg. No. 42,234)  
(Reg. No. 30,256)

**WINSTON & STRAWN**  
Customer No. 28765

202-371-5770



Commissioner for Patents  
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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
10/073,601	02/11/2002	1741	600	81440-100	5	29	5

CONFIRMATION NO. 8064

28765  
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PATENT DEPARTMENT  
1400 L STREET, N.W.  
WASHINGTON, DC 20005-3502

## UPDATED FILING RECEIPT



\*OC000000009236899\*

Date Mailed: 12/12/2002

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

**Applicant(s)**

Phillip M. Rappa, New Port Richey, FL;  
Richard A. Lyons, St. Petersburg, FL;  
Ruggero M. Santilli, Palm Harbor, FL;

**Assignment For Published Patent Application**

EarthFirst Technologies, Inc.;

**Domestic Priority data as claimed by applicant**

This application is a CON of PCT/US00/13465 05/16/2000

*which claims priority to C91/372,275 C 2/11/1999*

**Foreign Applications**

If Required, Foreign Filing License Granted: 12/12/2002

Projected Publication Date: 03/20/2003

Non-Publication Request: No

Early Publication Request: No

**\*\* SMALL ENTITY \*\***

Title

## Synthetic combustible gas generation apparatus and method

**Preliminary Class**

422

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**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

# **SYNTHETIC COMBUSTIBLE GAS GENERATION APPARATUS AND METHOD**

## **CROSS-REFERENCE TO RELATED APPLICATIONS**

5 This application is a continuation of PCT Application No. PCT/US00/13465, filed May 16, 2000, now pending, which claims the benefit of Application No. 09/372,278, filed August 11, 1999, the contents of each of which are incorporated herein by express reference thereto.

## **FIELD OF INVENTION**

10 The invention relates to a method of obtaining a supply of a synthetic combustible gas by flowing a fluid through an arc between spaced electrodes. The invention also relates to an apparatus for obtaining a supply of the synthetic combustible gas.

## **BACKGROUND OF THE INVENTION**

15 Processes to produce a combustible gas from underwater arcs between carbon electrodes have been known in the art. The arc is generally produced between two carbon rods immersed in water via a DC power unit, such as a welder absorbing 15 KW of real electric power, with the arc operating at low voltage (25 to 35 V) and high current (300 A to 400 A). Proportionately bigger values of arc voltage and current hold for bigger power  
20 units. The high value of the current brings to incandescence the tip of the carbon anode, with consequential disintegration of the carbon crystal, and release of highly ionized carbon atoms to the liquid. Jointly, the arc separates the water into mostly ionized atoms of hydrogen and oxygen. This creates in the immediate cylindrical surroundings of the arc a high temperature plasma, generally of about 7,000°F, which is composed by mostly ionized  
25 H, O, C, and other atoms.

A number of chemical reactions then occur within or near the plasma, such as: formation of H<sub>2</sub> and O<sub>2</sub> molecules; burning of H and O into H<sub>2</sub>O; burning of C and O into CO; burning of CO and O into CO<sub>2</sub>, and other reactions. Since all these reactions are highly exothermic, they cause the typical very intense glow of the arc within water as well  
30 as a rapid temperature increase of the water itself. The resulting gases cool down in the water surrounding the arc, and bubble to the surface, where they are collected.

The reasons for the lack of industrial applications of plasma-arc gas generators are numerous. The carbon rods generally have a very short duration. According to extensive,

## DECLARATION FOR NON-PROVISIONAL PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below at 201 et seq. beneath my name.

I believe I am the original, first and sole inventor if only one name is listed at 201 below, or an original, first and joint inventor if plural names are listed at 201 et seq. below, of the subject matter which is claimed and for which a patent is sought on the invention entitled

## SYNTHETIC COMBUSTIBLE GAS GENERATION APPARATUS AND METHOD

which was filed as Application No. 10/073,601, filed February 11, 2002.

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

EARLIEST FOREIGN APPLICATION(S), IF ANY, FILED PRIOR TO THE FILING DATE OF THE APPLICATION			
APPLICATION NUMBER	COUNTRY	DATE OF FILING (day, month, year)	PRIORITY CLAIMED
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

PROVISIONAL APPLICATION NUMBER	FILING DATE

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code § 112, I acknowledge the duty to disclose information known to me which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

NON-PROVISIONAL APPLICATION NO.	FILING DATE	STATUS		
		PATENTED	PENDING	ABANDONED
09/372,278	August 11, 1999		X	
PCT/US00/13465	May 16, 2000		X	

\* for use only when the application is assigned to a company, partnership or other organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

2	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
0	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
1	POST OFFICE ADDRESS	STREET	CITY	STATE OR COUNTRY ZIP CODE
	SIGNATURE OF INVENTOR 201			DATE
				10-18-02
2	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
0	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
2	POST OFFICE ADDRESS	STREET	CITY	STATE OR COUNTRY STREET ZIP CODE
	SIGNATURE OF INVENTOR 202			DATE
				11-13-02
2	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
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3	POST OFFICE ADDRESS	STREET	CITY	STATE OR COUNTRY STREET ZIP CODE
	SIGNATURE OF INVENTOR 203			DATE
2	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
0	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
4	POST OFFICE ADDRESS	STREET	CITY	STATE OR COUNTRY ZIP CODE
	SIGNATURE OF INVENTOR 204			DATE
2	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
0	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
5	POST OFFICE ADDRESS	STREET	CITY	STATE OR COUNTRY ZIP CODE
	SIGNATURE OF INVENTOR 205			DATE